

1330.0 - Education News, July 2011

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Education News - July, 2011

This newsletter highlights the latest curriculum related teaching resources, student activities and statistical tools that have been developed by ABS Education Services as well as other ABS resources that are useful for schools.

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A word from the editor

This edition's theme celebrates the closure of the CensusAtSchool 2011 Questionnaire and the release of the data collected into the Random Sampler. While the questionnaire was running, Jean, Gai, Pat, Mary-Anne, Tanya and I made guesstimates of how many questionnaires were completed each day. Often we'd ask someone in the branch or a visitor to our floor to be a Guest Guesser. Once everyone had made their guesses, we'd check the numbers and whoever was closest to the actual number of completed questionnaires was the winner. The winner then had the privilege of colouring in bricks on our CensusAtSchool lighthouse. Watching the number of coloured bricks grow each day was a great way of visualising the questionnaire's progress – it also created a bit of competition with friendly threats (is that an oxymoron?) of nobbling individuals if they won too frequently. Mary-Anne won the overall tally for guesses closest to the actual number of completed questionnaires.

Thanks for your continued contribution to the C@S project. Andrea MacGlashan.



This is Mary-Anne Aram. Mary-Anne worked as a teacher in Science, Maths and Aboriginal Education at Broome Senior High School in Western Australia and Parkdale Secondary College in Melbourne before beginning work for the ABS as a Specialist Teacher Consultant in January 2010. She is now the Manager of Education Services and works primarily on CensusAtSchool. Her professional interests lie in creating interesting lessons and activities, especially those that incorporate cross curricular activities into Maths.

1. CensusAtSchool News – 2011 data release



Data from the 2011 CensusAtSchool Questionnaire is now available in the Random Sampler. Like previous years, the questionnaire collected both categorical and numerical data and even if you and your students didn't take part in the questionnaire, you can still access the data.

The Random Sampler has had several improvements to its functionality. For instance, you can now select data by question and state as well as year level, postcodes and sex. The number and range of investigations that the data allows is limited only by your imagination. For example: students can compare themselves with students in other regions or states and territories. In addition, by accessing CensusAtSchool International, they can even compare Australian data with data from students in:

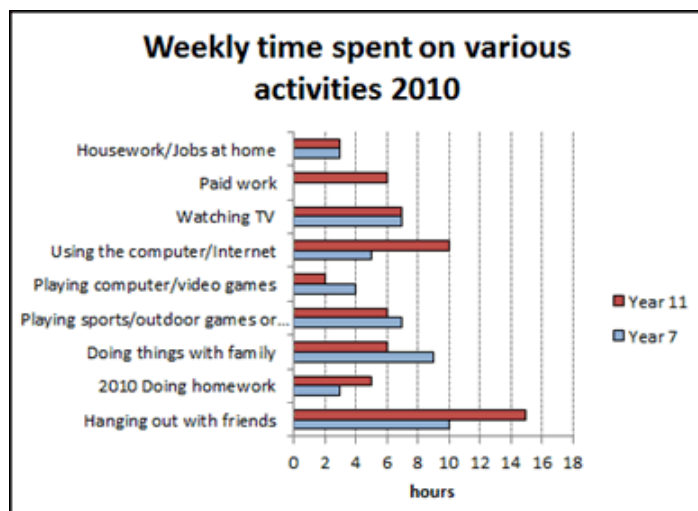


Some topics that your students might explore:

- How does the amount of time spent on homework vary for year level, state or territory, and sex?
- Do students in the country use different modes of transport than their city counterparts?
- Who gets more sleep per night, students in lower or higher year levels?
- What do students eat for breakfast before they come to school?
- How does hand reaction time vary from one year level to another?
- What proportion of internet time is spent on school work compared to other activities?

Why not compare 2011 data with the graphs made using previous data?

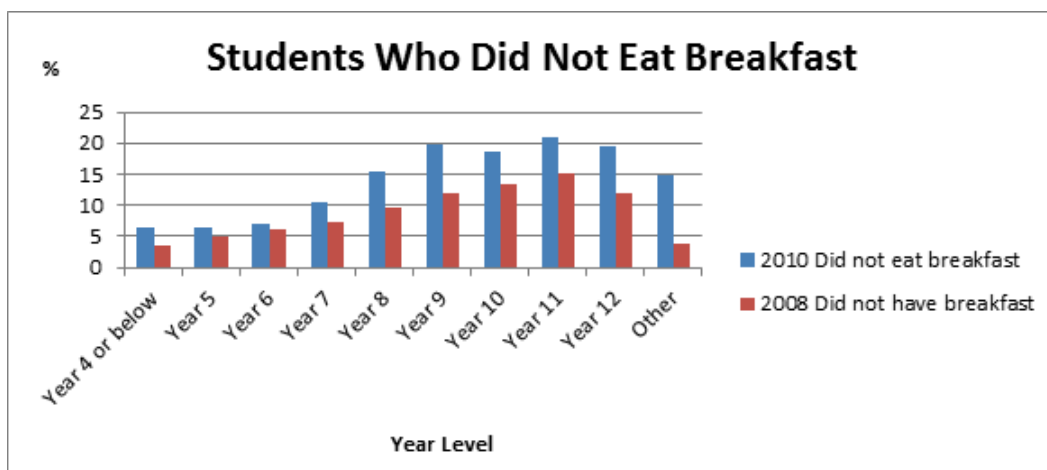
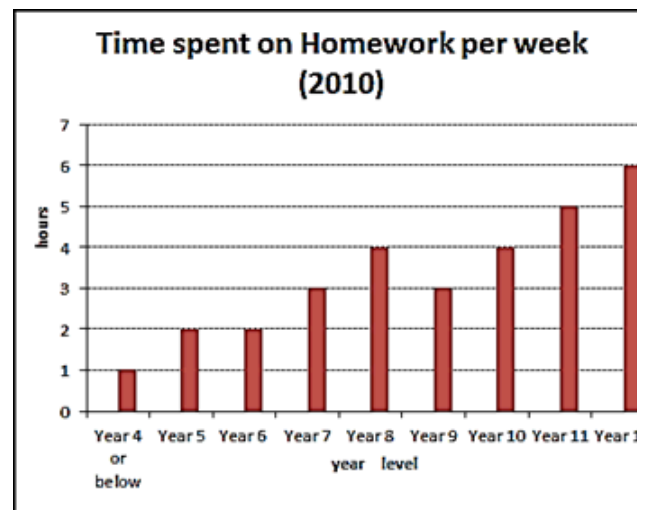
For each of the following graphs students can look for the story behind the data and make a prediction for the 2011 results.



These data from the 2010 National Summary Tables show the different ways year 7 and 11 students spend their time. Compared to Year 7 students, Year 11 students spend more time hanging out with their friends, doing homework and using the computer.

On the other hand, Year 7 students spend more time with their family and playing sport. No Year 7 student reported time in paid work, whereas the median time spent by a year 11 student was 6 hours per week.

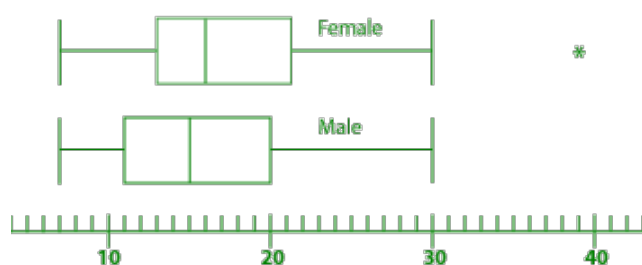
The amount of reported time students spend on homework generally increases as they advance through school. Year 4 students complete 1 hour per week and Year 12 complete 6 hours. However, Year 9 students say they spend less time on homework than those in Year 8.



This graph compares breakfast habits between 2008 and 2010. You can see that the percentage of students who say they don't eat breakfast generally increases to a peak in Year 11 and then decreases in Year 12. There has also been a noticeable increase of 1-11% in students who reported that they didn't eat breakfast from 2008 to 2010.

Time taken to complete the questionnaire 2010

5 number summary



	min	Q ₁	med	Q ₃	max
females	7	13	16	21.25	39
males	7	11	15	20	30

In 2010, the median time to complete the questionnaire for females was 1 minute longer than for males. The range of times was the same for males and females (23 min) when an outlier for females was removed.

Don't forget that there are many ideas for incorporating CensusAtSchool into your curriculum available on our website. As well as QuickC@S lessons that take a single lesson to complete and reinforce one concept, there are also longer tasks available. C@S activities have answer sheets and marking rubrics so you can use them for assessment.

We are also happy to receive your ideas to add to our Teacher Submitted Activities pages.

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2. An Idea for the Classroom – CaSQ 25A Using Graphs to Design Your Own Investigation

This activity sets out the steps involved in running an investigation. Students could use one of the above graphs to generate ideas for investigating the 2011 data.

Task: Use a CensusAtSchool random sample to conduct your own investigation and analysis.

1. Pose a question
2. *Variables:* If you are looking at categorical data, you may only have one variable.
3. When you are looking at numerical data you can use one or two variables. If you're looking for a relationship you need to identify your variables as independent and dependent.
4. *Results:* use the first thirty values from your random sample to graph your data. Think about the most appropriate way to display your data. There is a grid provided for creating your graph.
5. *Discussion:*
 - a. What sort of graph did you choose to display your data?
 - b. Why did you choose this type of graph?
 - c. Identify and describe any features or patterns in your graph.
6. *Conclusion:* Write a short summary paragraph describing the main findings from your graph.



We would love to hear [feedback](#) from anyone who finds the activity useful or has ideas for improving it.

Do you have a classroom idea that uses ABS data or ABS Education products? Let us know at education@abs.gov.au and we can share it with schools around Australia.

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3. Book – *Digging into Australian data with TinkerPlots*

We are very happy to let our subscribers know about a new book written by a team led by Jane Watson who was the lead researcher in our StatSmart project.

In *Digging into Australian Data with Tinkerplots* you'll find a number of activities using CensusAtSchool data. The inquiry based lessons use real-world Australian data including C@S data to engage students and support them in making conjectures, creating and making graphical representations, and writing evidence based conclusions.

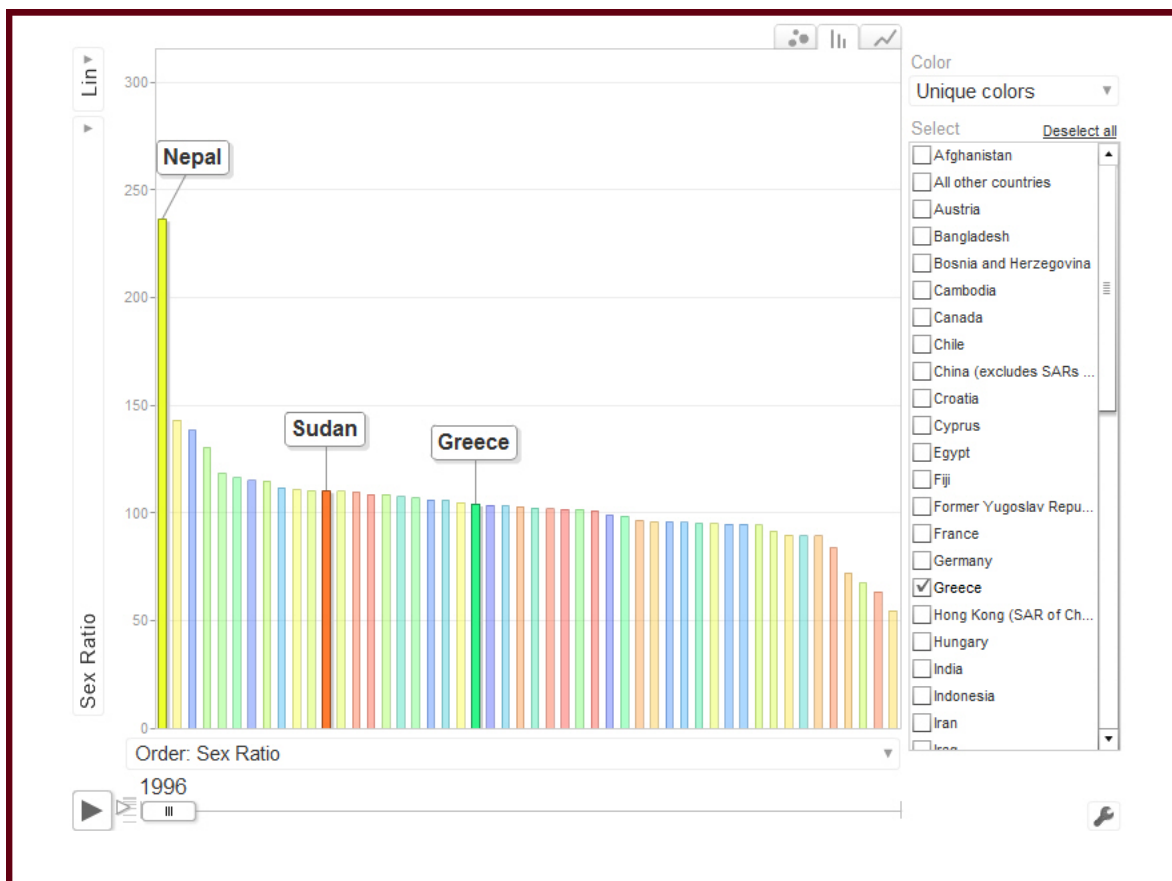
More details and information about purchasing copies can be found at www.lat-olm.com.au.



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4. ABS Resources for Teachers – New History datasets and visualisations

One of the aims of the History component of the Australian Curriculum is to assist students in developing an understanding of the past so they can comprehend the present and contribute to planning for the future. These datasets have been designed to satisfy criteria in the Australian Curriculum specifically Year 5 – The Australian Colonies, Year 6 – Australia as a nation, and Year 10 – The modern world and Australia. We've used data from ABS publications and made them printer friendly and easy to use.



Three of the datasets have Google Motion Charts – click on this chart and see it work

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5. Conferences



The Education Services team regularly attends conferences to present and run workshops. Specialist Teacher Consultant, Jean Arnott has had a busy couple of months. In April, Jean ran a computer workshop about the online Education Services and CensusAtSchool resources at the 2011 Maths Association of South Australia Conference. At the Mathematics Association of Tasmania Annual Conference in May, Jean presented ways of engaging students by using technology such as Excel. She also showcased some of our student activities and demonstrated how to involve students in the CensusAtSchool project.

Some very useful tools for upper primary and implementation {into the classroom}. Good work ABS! (Tasmanian Maths teacher)

Gai Mooney (Assistant Director), Jean and Mary-Anne Aram (Manager) presented an all day workshop to ACT and NSW Heads of Department for Maths from state, independent and catholic schools. With an emphasis on the Australian Curriculum, teachers used the question 'what is an authentic task?' to critically evaluate the online resources offered by Education Services and worked through a variety of lessons to get a feel for what is offered from the ABS website.

I plan to use your Misleading Graphs activity for my Year 10 class. I think that they will really enjoy its authenticity! (Janine, ACT Maths teacher)

Gai is currently presenting at the AAMT-MERGA conference in the Northern Territory. In August, Mary-Anne will be presenting at Canberra Maths Association Annual Conference. Pat Beeson (Specialist Teacher Consultant) will be presenting at the Geography Teacher Association conferences in Victoria and New South Wales. In September, Jean, Mary-Anne and Andrea MacGlashan (Team Leader) will be at New South Wales Mathematics Association Annual Conference.

Come and say hello if you're attending any of these conferences – we're always interested in your feedback and suggestions for improving our services.

6. STATS QUEST: We Want Your Work for Our Community Pages


Student work for the online community pages

Have your students been using lessons or data from the ABS? Teachers are invited to submit copies of exemplary student work by post or email to the ABS Education Services Unit. Unfortunately we are unable to return original copies. From these, lessons and data will be chosen to be posted on the Education Services web pages with acknowledgement given to the student and the school. When submitting lessons or data, remember to include your permission to publish work signed by the student and yourself and include the name of your school. Also, please ensure that you include your contact details so we can contact you if necessary. In addition, all students who have work submitted will be acknowledged with a certificate... a great way to reward students and promote high quality work in your classroom.

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7. New Census activities


With the Census of Population and Housing fast approaching, you might be interested in our range of activities designed to demystify Census processes and explain how the data collected is used. We've added a Frequently Asked Questions suite that comprises beginners, intermediate and advanced versions. All of the FAQ activities contain a glossary of Census and related terms.



Census 2011
The Australian Bureau of Statistics (ABS) is responsible for developing and administering Australia's Census of Population and Housing. This activity will help you understand the processes of a Census by matching frequently asked questions with their answers.

- List 3 or 4 questions that you think people might want to know about the Census. Also think about who might ask these questions.
- Compare your responses with someone else in your class. Write down a question that was different to yours.
- Discuss with your class what questions other students had.
- Look at the questions listed in the table on Page 2 and:
 - Place a tick next to any that are the same as ones raised by your class.
 - Put a number next to each question according to the order that you think the information would be presented.
 - Share your answers with the rest of the class and try to arrange them in an order that all of the class agrees to.
- On pages 2, 3 and 4 there are answers to the questions shown in the table. Cut the statements out and match them to the correct question.
Note: definitions of words in bold in the statements appear in the glossary.
- Extension:** prepare a one minute talk for the class explaining why all people in Australia on Census night need to fill in a Census form.

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Table for Q4


Question	On my list? ✓ or X	Order 1-11	Class order
Is it compulsory?			
Who uses Census information?			
How does the ABS make sure of my privacy?			
How secure is the eCensus?			
Is my information going to be provided to other government agencies such as Centrelink, Tax Office or Department of Housing?			
Why is the Census needed?			
What are the benefits of having a Census?			
How are the Census results used?			
What is the eCensus?			
What is the Census?			
Who is counted in the Census?			

Sentences for Q5: Cut out the sentences, match them with the appropriate question in the table and then write the question's number in the box.

☐ The Census is crucial to communities, private institutions and all levels of government for the planning of services and facilities. Federal funding arrangements to the states and territories are also based on Census figures. Census information is used as the basis for the allocation of GST revenue to the states and territories.

Page 2





Glossary

- ABS
- Allocation
- Authorities
- Benefits
- Browsers
- Census
- Census Night
- Characteristics
- Compulsory
- Confidentiality
- Crucial
- Distribution
- Dwelling
- eCensus
- Elderly
- Electoral boundaries
- Encryption
- Estimate
- FAQ
- Federal funding
- Foreign diplomats
- GST revenue
- House of Representatives
- Key characteristics
- Members of Parliament
- Policy
- Privacy
- Pulped
- Services and facilities
- States and territories
- Tampering
- Third party
- Unauthorised person

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8. Recently Released Publications

Apparent Consumption of Alcohol, Australia, 2009-10 (cat # 4307.0.55.001)

Australian drinking habits are changing. For instance, Australians are drinking less pre-mixed beverages but more spirits. In addition, despite beer being Australia's drink of choice, we are consuming significantly less than 50 years ago (44% in 2010, down from 76% in 1960). On the other hand, wine consumption has

increased from 12% to 37% over the same period.

These are some of the current and long term trends in alcohol consumption explored in this annual publication, which estimates and explores Australians' apparent consumption of alcohol of various types—from beer and wine to spirits and Ready to Drink (pre-mixed) beverages.

Migration, Australia, 2009-10 (cat # 3412.0)

Australia's diversity continues to flourish, with 27% of all Australia residents being born overseas in over 200 countries across the world, including the UK, New Zealand, China, India and Italy. Most migrants settle in NSW, Victoria and Queensland, and few in the Northern Territory. In addition, the number of international students has reached a record high.

This publication explores migration patterns to and from Australia as well as interstate migration, and reveals the characteristics of overseas-born residents. It provides unique insight into Australia's multicultural population at present and over time.

Aboriginal and Torres Strait Islander Wellbeing: A focus on children and youth, April 2011 (cat # 4725.0)

Almost half of all Aboriginal and Torres Strait Islander youth aged 15–24 living in remote areas speak an Indigenous language; one-quarter (26%) of youth have experienced discrimination in the past year because of their origins; and 1 in 3 children aged 3–14 years spent time with an Indigenous or Torres Strait Islander elder at least once a week.

These are some of the findings about Indigenous children and youth from the 2008 ABS National Aboriginal and Torres Strait Islander Social Survey. This preliminary publication presents key findings from the survey in a range of concise informative articles. The Survey provides a fascinating snapshot of the characteristics and social and cultural experiences of Australia's Aboriginal and Torres Strait Islander youth, and how these factors may be linked to feelings of positive or negative wellbeing.

Sports and Recreation: A Statistical Overview, Australia, 2011 (cat # 4156.0)

Australians love playing and watching sport. For example, in 2009-10, 64% of Australians participated in a physical activity and 43% attended at least one sporting event. As might be expected, Australian Rules football attracted the most spectators. Working in sports related industries is also popular; there was a 23% increase in employment in sport and physical recreation occupations between 2001 and 2006.

This publication provides a comprehensive overview of all aspects of sport and physical recreation in Australia including: participation in sports; attendance at sporting events; employment and volunteering in sport and physical recreation; and international trade of sport and recreation products.

Family Characteristics, Australia, 2009-10 (cat # 4442.0)

The dynamics of Australian families have changed over the past 13 years as more mothers are working. In 1997, 59% of mothers in couple families were employed whereas 2009-10 saw a rise to 66%. There was also an increase in employment for lone mothers with dependents – 46% in 1997 to 60% in 2009–10.

This publication, which explores the characteristics of Australian families and households, also reveals a 4% increase in the number of couple families without children. However, at 84%, the majority of families in Australia are still couple families, while 14% are single parent families and 2% are other families.

There is a range of downloads within this publication covering topics such as children's contact with grandparents, the different variations of families and the employment status of parents.

Remember, **all** publications available on the **ABS website** are **free** to download.

You can view the full range of previously released publications from the ABS under **Previous Releases**.

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9. Contact Details

How to contact **ABS Education Services**

Free Call: 1800 623 273

Email: education@abs.gov.au

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